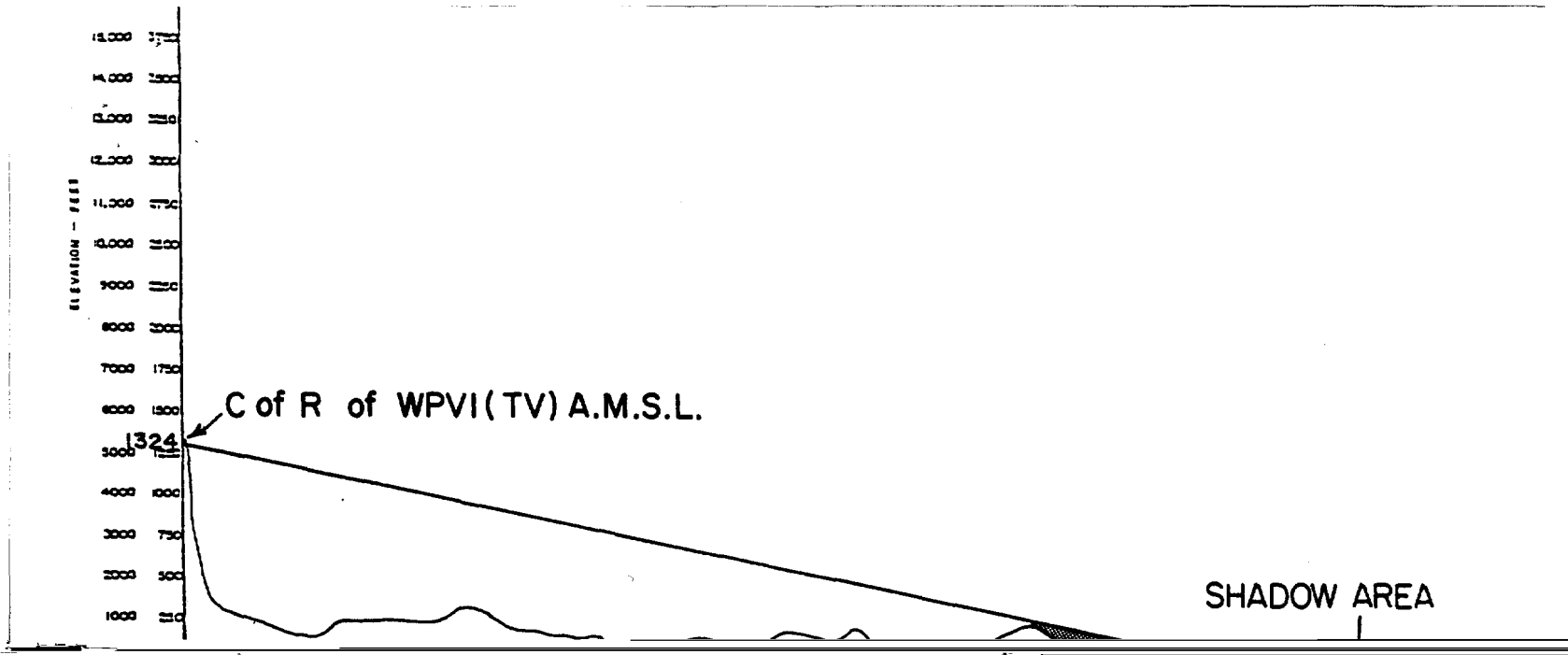
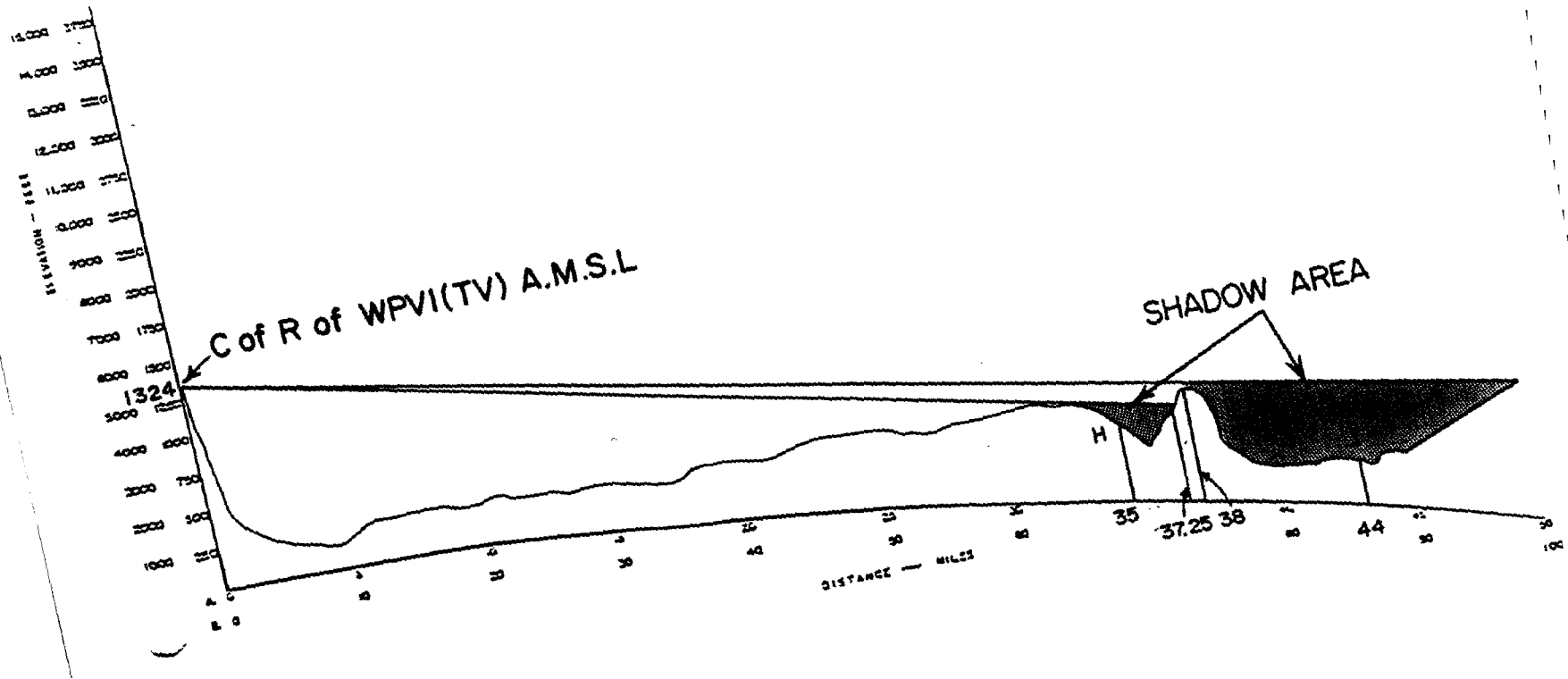

ELEVATION - FEET
15,000
14,000
13,000
12,000
11,000
10,000
9000
8000
7000
6000
5000
4000
3000
2000
1000
1750
1500
1324
1000
750
500
250
C of R of WPVI (TV) A.M.S.L.
SHADOW AREA


C of R of WPVI(TV) A.M.S.L
1324
SHADOW AREA
H
35
37.25
38
44
DISTANCE — MILES

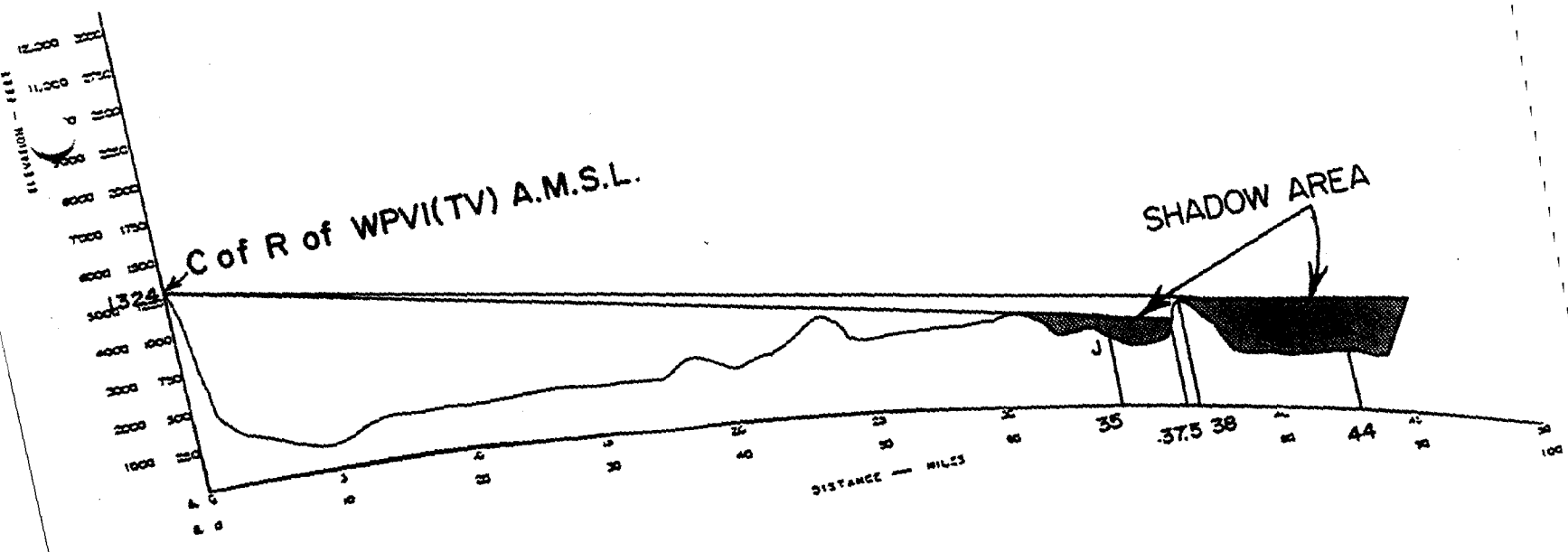
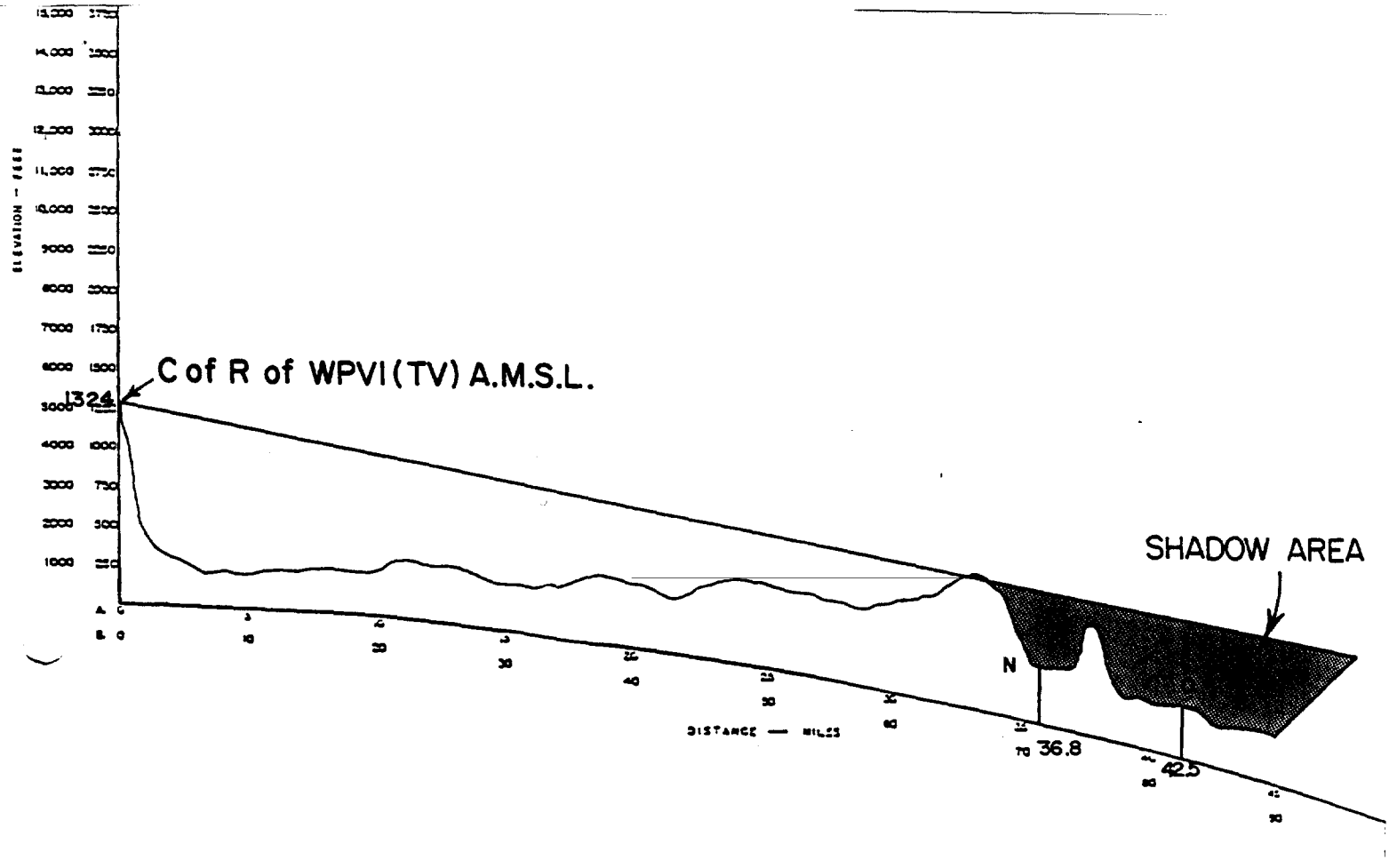

C of R of WPVI(TV) A.M.S.L.
1324
SHADOW AREA
J
35
37.5
38
44
DISTANCE — MILES

EXHIBIT 7F


C of R of WPVI(TV) A.M.S.L.
1324
SHADOW AREA
N
36.8
42.5
DISTANCE — MILES

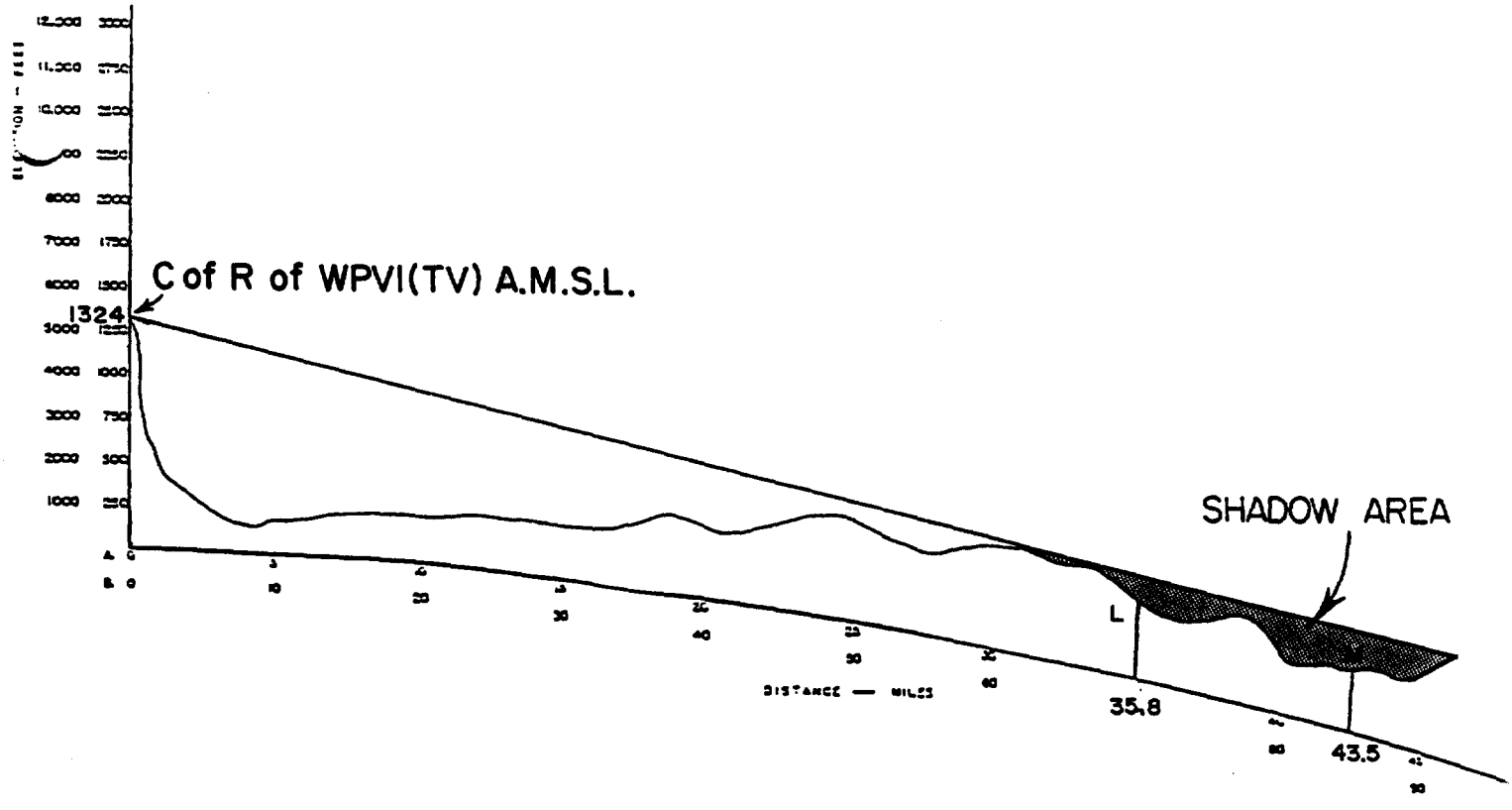

C of R of WPVI(TV) A.M.S.L.
1324
SHADOW AREA
L
35.8
43.5
DISTANCE — MILES

EXHIBIT 7G

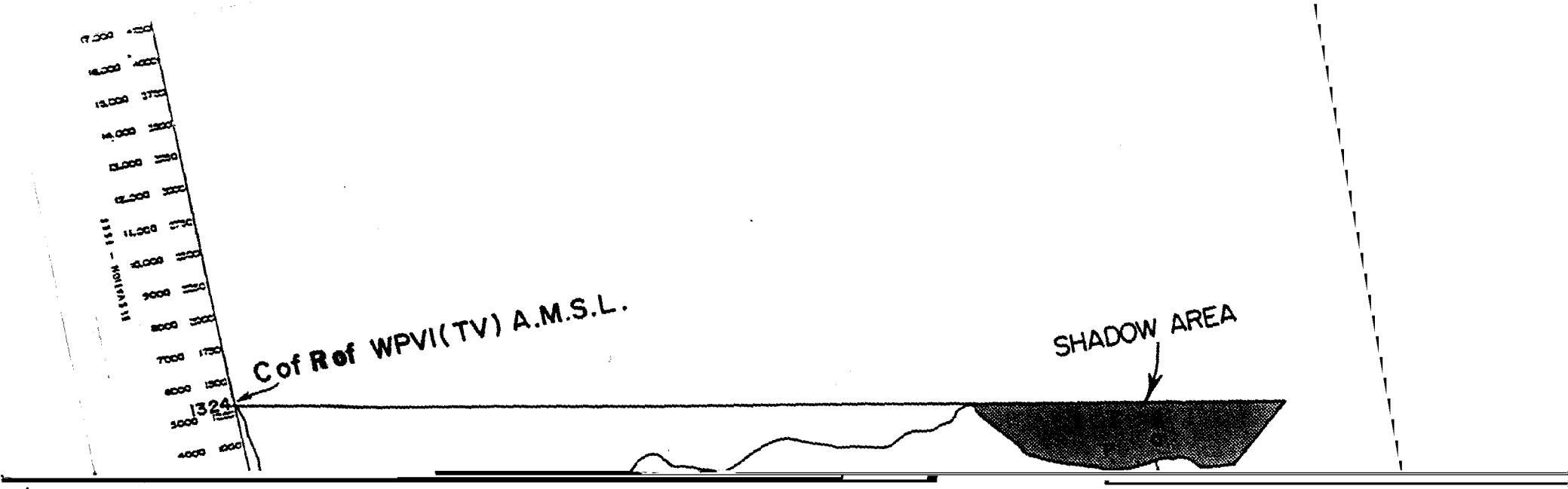

ELEVATION — FEET
1324
C of R of WPVI (TV) A.M.S.L.
SHADOW AREA

EXHIBIT VB-8

RADIATION LEVEL

BEACON BROADCASTING CORPORATION
APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
ALLENTOWN, PENNSYLVANIA

Channel 207A 0.15 kW(Max) DA 245 Meters

The following calculations are performed in order to determine, whether the proposed FM station has significant environmental effect.

Computations

FM Facilities

The calculations to determine power density (mW/cm^2) and power density level of all FM facilities are computed by using the following equation.

$$\text{Power density in mW/cm}^2\text{ (S)} = \frac{(0.64)\ (1.64)\ (\text{Total ERP in Watts})\ (1000\ \text{milliwatts 1 watt})}{\pi\,(\text{Center of Radiation in cm})^2}$$

For the proposed FM facility, the total ERP is 0.30 kW and the center of radiation is 113 m. Therefore, power density for the proposed FM facility is 0.0008 mW/cm^2. For the existing WFMZ-FM facility, the total ERP is 34 kW and the center of radiation is 132.6 m. Therefore power density for WFMZ-FM facility is 0.065 mW/cm^2. Total power density of all FM facilities is 0.0658 mW/cm^2.

TV Facilities

The calculations to determine power density (mW/cm^2) and power density level of TV facilities are computed by using the following equation.

$$\text{Power density in mW/cm}^2\text{ (S)} = \frac{(2.56)\ (1.64)\ 100\ (F^2)\ (0.4\ \text{VERP} + \text{AERP})}{4\ \pi\,(\text{center of radiation in meters})^2}$$

For WPTT(TV) Station, VERP is 2147.8 kW, AERP is 214.8 kW, F is 0.1, and center of radiation is 197.4 meters. Therefore, power density for WPTT (TV) is 0.0092 mW/cm^2.

Conclusion

The computation of the power density for the proposed FM station was performed in accordance with OST Bulletin No. 65, Evaluating Compliance with FCC specified Guidelines for Human Exposure to Radiofrequency Radiation. The total power density of all FM facilities is 0.0658 mW/cm^2. The power density of WFMZ(TV) is 0.0092 mW/cm^2. The total power density for the TV and all FM facilities is 0.075 mW/cm^2. Since this value is less than 1.0, the proposed facility is in compliance with OST Bulletin No. 65 and the ANSI standards.

Section V-B - FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant

BEACON BROADCASTING CORPORATION

Call letters *(if issued)*	Is this application being filed in response to a window? ☐ Yes ☒ No
NEW	If Yes, specify closing date: N/A

Purpose of Application: *(check appropriate box(es))*

- ☒ Construct a new (main) facility
- ☐ Construct a new auxiliary facility
- ☐ Modify existing construction permit for main facility
- ☐ Modify existing construction permit for auxiliary facility
- ☐ Modify licensed main facility
- ☐ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☐ Antenna supporting-structure height
- ☐ Effective radiated power
- ☐ Antenna height above average terrain
- ☐ Frequency
- ☐ Antenna location
- ☐ Class
- ☐ Main Studio location
- ☐ Other *(Summarize briefly)*

File Number(s) _____

1. Allocation:

Channel No.	Principal community to be served: City	County	State
207	Allentown	Lehigh	PA

Class *(check only one box below)*

☒ A ☐ B1 ☐ B ☐ C3
☐ C2 ☐ C1 ☐ C ☐ D

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.
Southside of East Rock Road. 1.25 km ENE of Intersection between 3rd Lane and East Rock Road. Lehigh County, PA. (WFMZ Tower)

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	40°	33'	54"	Longitude	75°	26'	26"

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☒ Yes ☐ No

If Yes, give call letter(s) or file number(s) or both. WFMZ TV, Licensee Ch. 69 and WFMZ FM Licensee Ch. 264

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

No changes to the WFMZ-TV existing tower

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

Latitude ° ' "	Longitude ° ' "

5. Has the FAA been notified of the proposed construction? ☐ Yes ☒ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Exhibit No. N/A

Date N/A Office where filed N/A

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	Allentown Queen City	3.20	279°
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 283.4 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 203.6 meters

(3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)] 487.0 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground 113.0 meters (H)

113.0 meters (V)

(2) above mean sea level [(a)(1) + (b)(1)] 396.4 meters (H)

396.4 meters (V)

(3) above average terrain 244.8 meters (H)

244.8 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No. VB-1

9. Effective Radiated Power:
(a) ERP in the horizontal plane 0.150 kw (H*) 0.143 kw (V*)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No. N/A

N/A kw (H*) N/A kw (V*)

*Polarization

10. Is a directional antenna proposed? [X] Yes [ ] No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field. Exhibit No. VB-2

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? [X] Yes [ ] No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. N/A

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? [X] Yes [ ] No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)* Exhibit No. VB-3

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply Exhibit No. VB-4A &

17. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: N/A)

18. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313).*

Source of terrain data: *(check only one box below)*

☐ Linearly interpolated 30-second database ☐ 7.5 minute topographic map

(Source: _____)

☒ Other *(briefly summarize)* Data taken from WFMZ-TV station records on file with the FCC and verified by using 7½ minute topographic map.

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	269.3	18.0
45	273.9	18.9
90	253.2	16.9
135	230.3	11.9
180	197.1	12.8
225	177.3	15.2
270	273.0	18.1
315	284.6	19.3

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No. N/A

20. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947. Exhibit No. N/A

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: See Engineering Statement – Table I, Table IV Exhibit No. VB-6

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference).* Exhibit No. N/A

23.(a) Is the proposed operation on Channel 218, 219, or 220? ☐ Yes ☒ No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? ☐ Yes ☐ No N/A

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No. N/A

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. N/A

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 6)

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No. N/A

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

[X] Yes [ ] No

See Engineering Statement – Table II & Table V

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No. VB-7A thru VB-7H

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

[ ] Yes [X] No

If Yes, attach as an Exhibit information required in 1/. *(Except for Class D (secondary) proposals.)*

Exhibit No. N/A

26. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

[ ] Yes [X] No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No. N/A

If No, explain briefly why not. The proposed site is categorically excluded from environmental processing under the provisions of Section 1.1306 of the FCC Rules and Regulations.

CERTIFICATION

See Exhibit VB-8

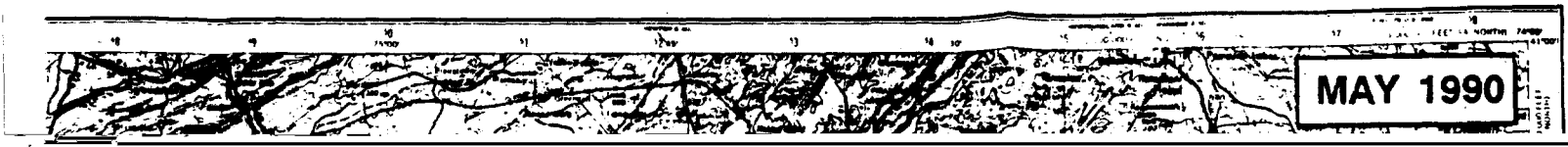
I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)*	Relationship to Applicant *(e.g., Consulting Engineer)*
LALIN FONSEKA	Telecommunications Consultant
Signature Lalin Fonseka	Address *(Include ZIP Code)* LECHMAN & JOHNSON, INC. 9500 Annapolis Road, Suite C-1 Lanham, MD 20706
Date May 30, 1990	Telephone No. *(Include Area Code)* (301) 577-0800

NEWARK

EDITION 3

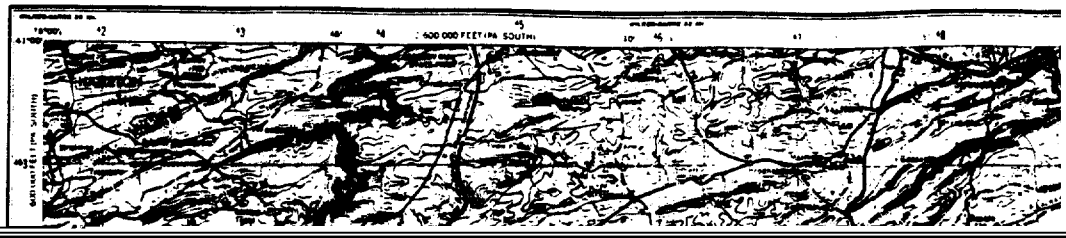
NK 18-11
SERIES V501



EASTERN UNITED STATES 1:250.000

Area : 864 sq. km.
Pop. : 356,471 persons

Site Coordinates
N. Lat. 40°33'54"



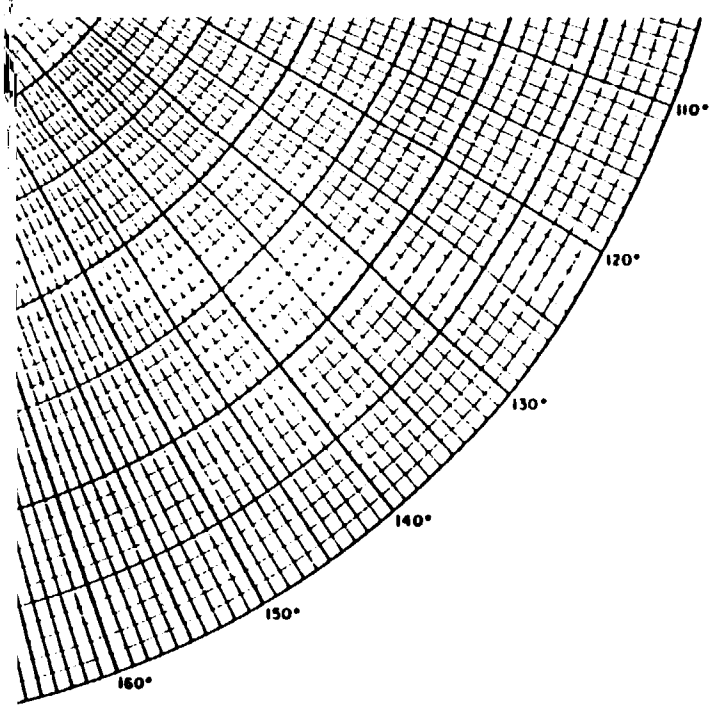
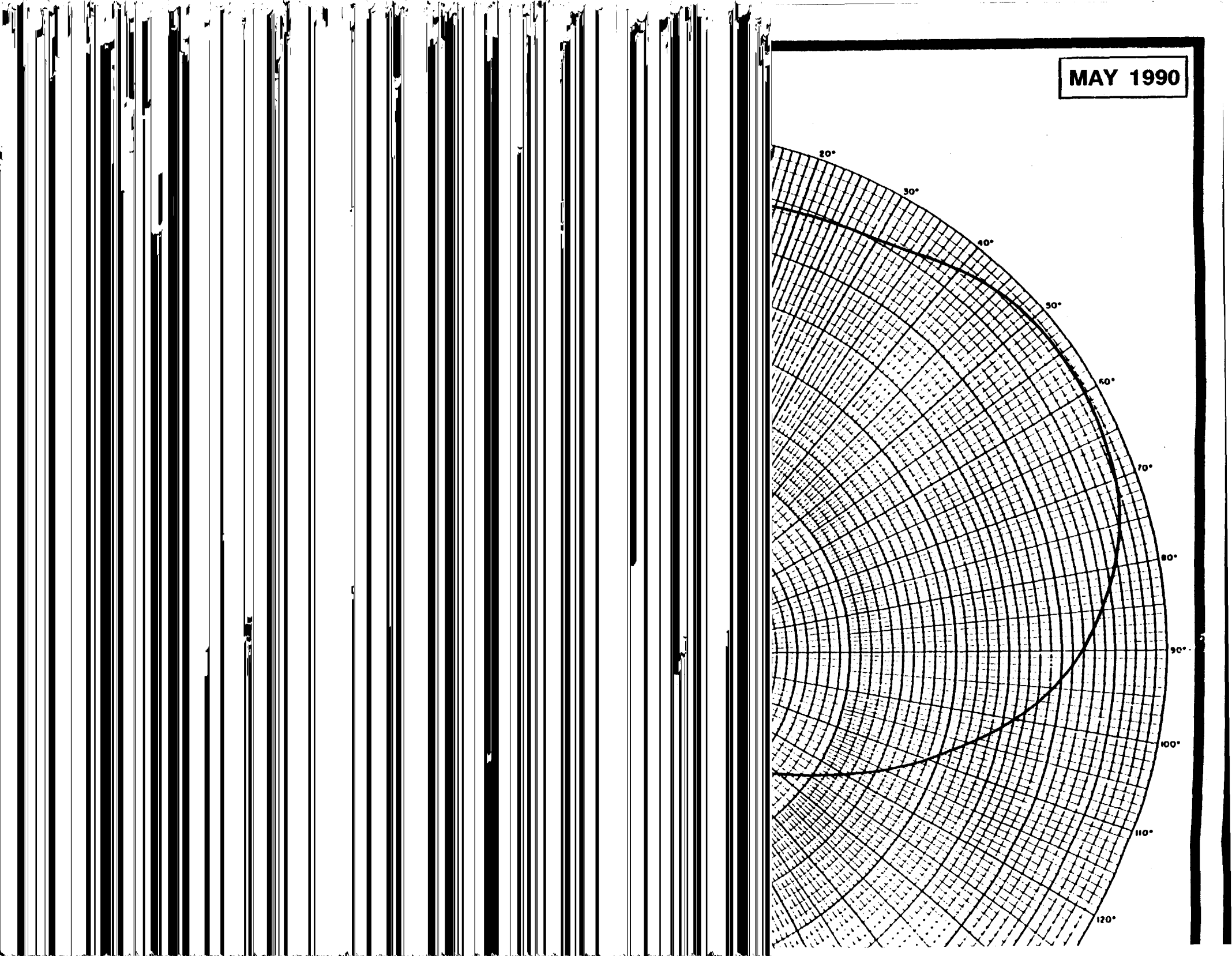


EXHIBIT VB-2

ON

245 Meters


MAY 1990
20°
30°
40°
50°
60°
70°
80°
90°
100°
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